



DESCRIPTION OF A NEW SPECIES OF *PHYLLODYTES* WAGLER, 1830
(ANURA, HYLIDAE) FROM THE ATLANTIC RAIN FOREST OF THE STATES
OF MINAS GERAIS AND BAHIA, BRAZIL¹

(With 2 figures)

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ABSTRACT: A new species of the genus *Phyllodytes* is described from the Atlantic Rain Forest of northeastern Minas Gerais and southern Bahia, Brazil. The new species is distinguished from all other species of the genus by the color pattern of dorsum (body, arms, and legs pale brown with irregular distinctive cream stains) and larger size (SVL 39.7-43.5mm in males, 48.5mm in female).

Key words: Anura. Hylidae. *Phyllodytes maculosus* sp.nov. Atlantic Rain Forest. Taxonomy.

RESUMO: Descrição de uma nova espécie de *Phyllodytes* Wagler, 1830 (Anura, Hylidae) da Floresta Atlântica dos Estados de Minas Gerais e Bahia, Brasil.

Uma nova espécie do gênero *Phyllodytes* é descrita da Floresta Atlântica no nordeste de Minas Gerais e sul da Bahia. A nova espécie distingue-se das demais espécies do gênero pelo padrão de colorido dorsal (corpo e membros de cor marrom pálido com manchas irregulares de cor creme) e por seu tamanho maior (CRA 39.7-43.5mm nos machos, 48.5mm na fêmea).

Palavras-chave: Anura. Hylidae. *Phyllodytes maculosus* sp.nov. Floresta Atlântica. Taxonomia.

INTRODUCTION

Treefrogs of the genus *Phyllodytes* are distributed in Trinidad and eastern Brazil (PEIXOTO *et al.*, 2003). Currently, 11 species are recognized: *P. auratus* (Boulenger, 1917) occurs in Trinidad and *P. acuminatus* Bokermann, 1966, *P. brevirostris* Peixoto & Cruz, 1988, *P. edelmoi* Peixoto, Caramaschi & Freire, 2003, *P. gyrinaethes* Peixoto, Caramaschi & Freire, 2003, *P. kautskyi* Peixoto & Cruz, 1988, *P. luteolus* (Wied-Neuwied, 1824), *P. melanomystax* Caramaschi, Silva & Britto-Pereira, 1992, *P. punctatus* Caramaschi & Peixoto, 2004, *P. tuberculatus* Bokermann, 1966, and *P. wuchereri* (Peters, 1873), occurs in eastern Brazil (CARAMASCHI *et al.*, 2004; FROST, 2006).

Herein, we describe a new species of *Phyllodytes* from the northeastern of Minas Gerais and southern of Bahia. This new species is related to *P. kautskyi*.

MATERIAL AND METHODS

Specimens examined are deposited in the collections: EI (Eugenio Izecksohn Collection, Universidade Federal Rural do Rio de Janeiro, Brazil), MNRJ (Museu Nacional, Rio de Janeiro, Brazil), MZUSP (Museu de Zoologia, Universidade de São Paulo, Brazil), USNM (United States National Museum, Smithsonian Institution, Washington, D.C., USA), WCAB (Werner C.A. Bokermann Collection, currently in the MZUSP), and referred in CARAMASCHI *et al.* (2004) and PEIXOTO *et al.* (2003). Abbreviations used in the accounts below are: SVL (snout-vent length), HL (head length), HW (head width), IND (internarial distance), END (eye-nostril distance), ED (eye diameter), IOD (interorbital distance), TD (tympanum diameter), HDL (hand length), THL (thigh length), TL (tibia length), and FL (foot length). All measurements are in millimetres. Webbing formula notation follows SAVAGE & HEYER (1967, 1997).

¹ Submitted on May 16, 2006. Accepted on October 9, 2006.

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RESULTS

Phyllodytes maculosus sp.nov.

(Figs.1-2)

Holotype – BRAZIL: MINAS GERAIS: Municipality of Bandeira (15°49'S, 40°30'W; 837m above sea level), MNRJ 41669, adult ♂, F.R.Melo, F.S.Lima, and M.B.Faria, 15/III/2003.

Paratypes – BRAZIL: MINAS GERAIS: Municipality of Bandeira, MNRJ 41670, adult ♀, F.R.Melo, 28/XII/2004. BAHIA: Municipality of Mascote, Fazenda São José (15°34'S, 39°17'W), MNRJ 40251, adult ♂, B.V.S.Pimenta and R.V.Lopes, 25-28/XI/2005.

Diagnosis – A large species (SVL 39.7-43.5mm in males, 48.5mm in female) characterized by: (1) dorsum of body, arms, and legs pale brown with irregular distinctive cream stains; (2) a dark brown stripe extending on the eyes, tympanum, and reaching the inguinal region; (3) snout short, rounded in dorsal view, vertical in profile, with a small apical tubercle; (4) a slight groove extending from the nostril to the tympanum and under the eye; (5) two anterior large and six small odontoids on each side of the mandible; (6) dorsal skin rugose.

Comparisons with other species – The dorsal color pattern (pale brown with irregular distinctive cream stains) distinguishes *Phyllodytes maculosus* sp.nov. from *P. acuminatus*, *P. brevirostris*, *P. edelmoi*, *P.*

kautskyi, *P. luteolus*, and *P. melanomystax* (all have a immaculate dorsal color). The remaining species of the genus show some different kind of dorsal pattern: *P. auratus* and *P. wuchereri* have longitudinal stripes; *P. gyrinaethes* has variable marbled dorsal pattern; *P. punctatus* and *P. tuberculosus* present distinctive brown dots. *Phyllodytes maculosus* sp.nov. is close to *P. kautskyi* by the size (SVL 39.7-43.5mm in males, 48.5mm in female of the new species and SVL 38.0-42.0mm in males, 43.5mm in female of *P. kautskyi*). The other species are smaller (SVL in males ranging from 18.2mm in *P. punctatus* to 35.0mm in *P. auratus*). The rounded snout in dorsal view separates *P. maculosus* sp.nov. from *P. acuminatus*, *P. auratus*, *P. luteolus*, and *P. wuchereri* (acuminate snout). Moreover, in profile, the vertical snout distinguishes *P. maculosus* sp.nov. from *P. acuminatus*, *P. auratus*, *P. brevirostris*, *P. edelmoi*, *P. gyrinaethes*, *P. luteolus*, *P. tuberculosus*, and *P. wuchereri* (snout acute or protruding). However, *P. kautskyi*, *P. melanomystax*, and *P. punctatus* also present vertical snout in profile. *Phyllodytes maculosus* sp.nov., *P. acuminatus*, *P. gyrinaethes*, *P. luteolus*, *P. tuberculosus*, and *P. wuchereri* present on each side of the mandible two large anterior odontoids differing from *P. auratus*, *P. edelmoi*, *P. kautskyi*, and *P. punctatus* (one larger odontoid), whereas *P. brevirostris* and *P. melanomystax* have no large odontoid.



Fig.1- *Phyllodytes maculosus* sp.nov. (holotype, MNRJ 41669, SVL 21.6mm). (A) Dorsal and (B) ventral views.

Description of holotype – Body robust; head wider than long; snout short, rounded in dorsal view, with a small apical tubercle, and vertical in profile (Fig.2A-B); nostril on the tip of the snout, elliptical, directed anterolaterally; canthus rostralis poorly defined; loreal region slightly vertical, not concave; eyes directed anterolaterally; eye diameter 36.7% of head length; interorbital space flat, 34.5% of head width; tympanum distinct, rounded, diameter of tympanum 51.8% of eye diameter; supratympanic fold well marked, covering the upper margin of the tympanum; vocal sac subgular, poorly developed; tongue large, rounded, fixed behind; two groups of vomerine teeth on a straight line behind the choanae; each side of the mandible with two large anterior odontoids, the first slightly larger, followed by a series of six small others; pupil horizontal, iris projecting an inconspicuous meniscus on pupil.

Forearms and arms robust; hand large (Fig.2C), 30.3% of SVL; fingers, in order of length, I<II<IV<III; round subarticular tubercles present, two-lobed in the second segment of finger IV; few small supranumerary tubercles; palmar tubercle well developed, ovoid; thenar tubercle large, elliptical; finger discs as large as tympanum; webbing formula I - II 1,5 - 3 III 2,5 - 2* IV; fingers extensively fringed in both sides.

Legs robust; tibia slightly longer than thigh; sum of thigh and tibia lengths 91.4% of SVL. Foot (Fig.2D) with distinct round subarticular tubercles and numerous round supranumerary tubercles; inner metatarsal tubercle ovoid, spatulate, projecting laterally; outer metatarsal tubercle small, rounded; toes, in order of length, I<II<V<III<IV; toe discs slightly smaller than finger discs; webbing formula I 2 - 3 II 1,5 - 3 III 1,5 - 3 IV 2.5 - 1,5 V.

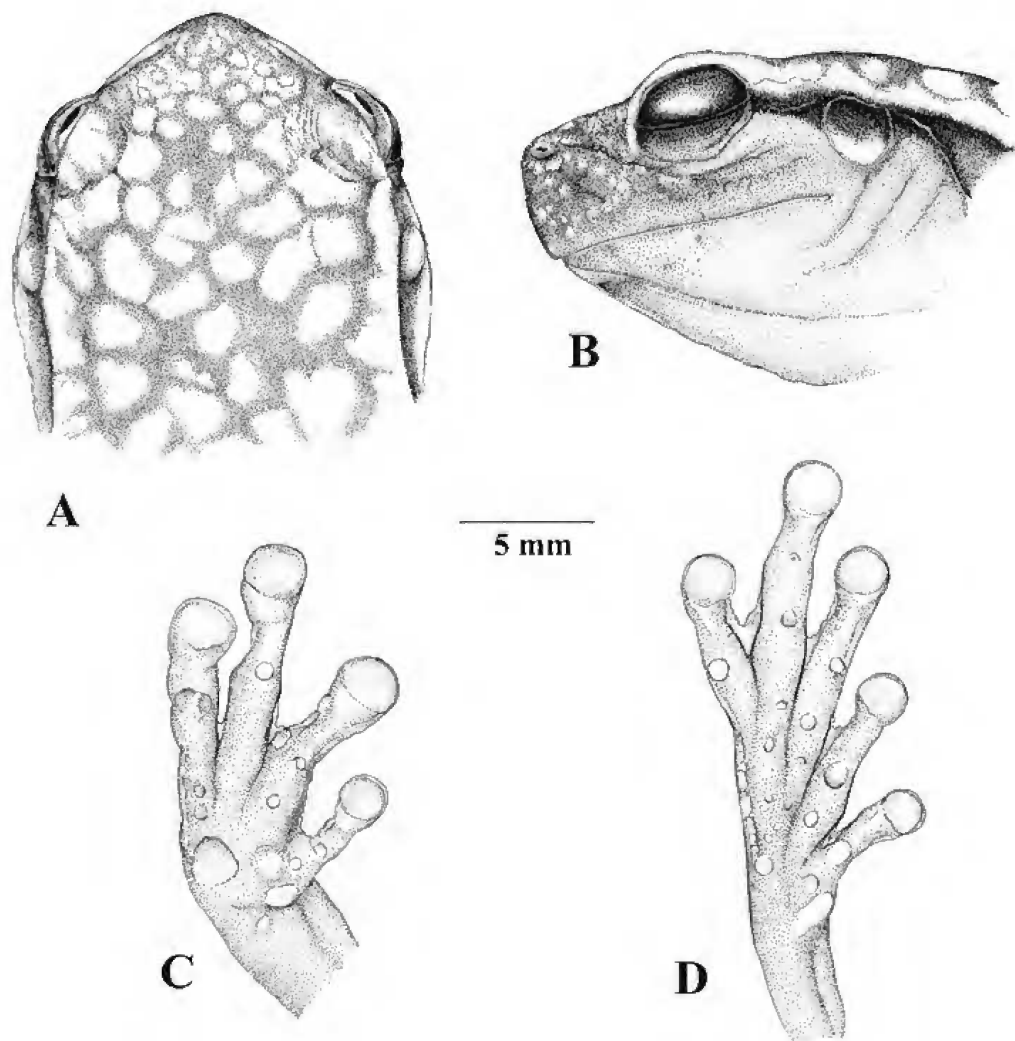


Fig.2- *Phyllodytes maculosus* sp.nov. (holotype, MNRJ 41669). (A) Dorsal and (B) lateral view of head; ventral views of (C) hand and (D) foot.

Dorsal surface of body, forearms, and tibiae rugose; a slight groove extending from the nostril to the tympanum, passing under the eye; venter granulated without distinct series of tubercles on belly; ventral surface of thighs with several distinct tubercles dispersed at thigh insertion. A row of distinct tubercles on the outer margins of forearms and tarsus.

Color in preservative – Dorsum, flanks, and dorsal surface of limbs pale brown with irregular distinctive cream stains; laterally, a dark brown stripe extending on the eye, tympanum, and reaching the inguinal region. Ventral body and limbs surfaces cream; palmar and plantar surfaces brownish.

Color in life – Dorsum of body greenish cream with pale brown stains; snout and limbs light-green; laterally, a dark brown stripe crossing the eye, tympanum, and reaching the inguinal region; venter white; iris copper.

Variation – The type specimens present little variation in morphological aspects and color pattern. The dorsal background color varies from tan to light grey. The dorsal pattern is not well defined in the specimen MNRJ 40251. Measurements of the type series are presented in table 1.

Etymology – The specific name refers to distinctive dorsal color pattern. *Maculosus* is a latin vernacular name meaning “covered with stains”.

Remarks – The geographical distribution of *Phyllodytes kautskyi* referred by PEIXOTO & CARAMASCHI (2002) to the State of Bahia, Brazil, is actually related to *P. maculosus* sp.nov. (MZUSP 63672, 63673).

TABLE 1. Measurements in millimetres of the specimens of the type-series of *Phyllodytes maculosus* sp.nov.

	MNRJ 41669 ♂, holotype	MNRJ 40251 ♂, paratype	MNRJ 41670 ♀, paratype
SVL	44.2	40.2	49.5
HL	14.7	13.6	15.5
HW	17.4	15.8	18.6
IND	2.1	2.1	2.6
END	4.8	4.3	4.9
ED	5.4	4.5	5.5
IOD	6.0	6.1	6.4
TD	2.8	2.9	2.7
HDL	13.4	12.0	13.7
THL	19.7	19.1	21.3
TL	20.7	20.8	22.1
FL	27.0	26.8	29.0

ACKNOWLEDGEMENTS

We thank W. Ronald Heyer (USNM) and Hussam Zaher (MZUSP) for allowing us to examine specimens under their care; Ulisses Caramaschi (MNRJ) for critically reviewing the manuscript; Paulo Roberto Nascimento (MNRJ) made the line drawings of the holotype; Fabiano R. Melo (Universidade do Estado de Minas Gerais/Carangola) and Bruno V.S. Pimenta (MNRJ) collected the type specimens; Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) for financial support to CAGC and MCSC fellowship. Specimen MNRJ 40251 was collected during field surveys of the project “Corredor de Biodiversidade da Costa do Cacau” supported by the Critical Ecosystem Partnership Fund (CEPF) and the United States Agency for International Development (USAID), coordinated by the Instituto de Estudos Sócio-Ambientais do Sul da Bahia (IESB). This work is part of the Project “Inventário de áreas prioritárias para conservação da biodiversidade nos vales dos rios Jequitinhonha e Mucuri”, supported by the Project on the Conservation and Sustainable Use of Brazilian Biological Diversity/Brazilian Ministry of the Environment (PROBIO/MMA), coordinated by the Conservation International do Brasil (CI-Brasil).

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